

Serial No.: 10/056,960
Group Art Unit: 2665
Examiner: Lina Yang

Amendment to the Claims

1 – 31. Currently canceled.

32 (New). A network paging method for enabling communications between a home agent and a wireless device over the Internet, said method comprising:

- triggering a mobile node (MN) when a paging request is received for said MN;
- triggering said MN when said MN changes Layer-2 paging area;
- triggering said MN when said MN changes mode;
- triggering an Access Router (AR) associated with said MN when Layer-2 state of said MN changes from an unreachable state to a reachable state;
- triggering said AR when Layer-2 state of said MN changes from said reachable state to said unreachable state; and

wherein said triggering steps are performed via a communication over the Internet.

33 (New). The method of Claim 32 wherein said communication is maintained under supervision of a network paging protocol comprising;

- Layer-3 network address structures, wherein Layer-3 refers to the network layer in the OSI stack;
- Layer-2 network address structures; and
- Paging area ID structures;, wherein said structures augment conventional Mobile IP communication protocols to affect network paging functionality associated with said MN.

34 (New). The method of Claim 32 wherein said triggering when Layer-2 state of said MN changes from said unreachable state to said reachable state is sent to Layer-3 at said AR when said MN state in Layer-2 changes from said unreachable state to said reachable state.

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35 (New). The method of Claim 32 wherein said triggering when Layer-2 state of said MN changes from said reachable state to said unreachable state is sent to Layer-3 at said AR when said MN state in Layer-2 changes from said reachable state to said unreachable state.

36 (New). A computer usable medium having computer-readable program code providing network paging functionality, said computer-readable program code comprising:

- computer program code which, when executed, cause asynchronously triggering a mobile node (MN) when a paging request is received for said MN;

- computer program code which, when executed, cause asynchronously triggering said MN when said MN changes Layer-2 paging area;

- computer program code which, when executed, cause asynchronously triggering said MN when said MN changes mode;

- computer program code which, when executed, cause asynchronously triggering an access router (AR) associated with said MN when Layer-2 state of said MN changes from an unreachable state to a reachable state; and

- computer program code which, when executed, cause asynchronously triggering said access router (AR) when Layer-2 state of said MN changes from said reachable state to said unreachable state.

37 (New). The computer usable medium of Claim 36 wherein said home agent is also a wireless device.

38 (New). The computer usable medium of Claim 36 wherein said triggering when Layer-2 state of said MN changes from said unreachable state to said reachable state is sent to Layer-3 at said AR when said MN state in Layer-2 changes from said unreachable state to said reachable state.

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39 (New). The computer usable medium of Claim 36 wherein said triggering when Layer-2 state of said MN changes from said reachable state to said unreachable state is sent to Layer-3 at said AR when said MN state in Layer-2 changes from said reachable state to said unreachable state.